

TEST TITLE: CP-2294/SPA-25G TACTICAL SYSTEM
INTERFACE UNIT ILO

TEST NO: 45011-3-057
REV/CHG: -

COVER SHEET

TEST PROCEDURE PREPARATION:

Prepared by: NSWC PHD DAMNECK DET CODE 6E10
TDA Organization and Code

Date: 1 DEC 98

TEST PROCEDURE REVIEW:

Reviewed by: NSWC PHD DAMNECK DET CODE 6D10
TDM Organization and Code

Date: 4 JAN 99

DOCUMENTATION CERTIFICATION:

Approved by: _____
TDD Organization and Code

Date: _____

REVISION RECORD

<u>REV/CHG</u>	<u>DESCRIPTION</u>	Approval	
		<u>INITIAL</u>	<u>DATE</u>
-	Original Issue	FES	31 DEC 98

LIST OF EFFECTIVE PAGES

<u>PG-REV</u>	<u>PG-REV</u>	<u>PG-REV</u>	<u>PG-REV</u>	<u>PG-REV</u>	<u>PG-REV</u>	<u>PG-REV</u>
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TEST OUTLINE

1. OBJECTIVE:

To verify that the CP-2294/SPA-25G Tactical System Interface Unit (CP-2294/SPA-25G TSIU) is operating properly during initial lite-off.

2. ESTIMATED TESTING TIME:

1.0 hour

3. REFERENCES:

SE245-AE-MMO-A10, Technical Manual for the Radar Signal Distribution Switchboard SB-4229A(V)/SP, Addendum 7, EC-7

4. TEST OR SUPPORT EQUIPMENT AND MATERIAL:

<u>GENERIC NAME</u>	<u>QUANTITY</u>	<u>IDENTIFYING INFORMATION</u>
a. Frequency Counter	1	SCAT 4296 or equivalent
b. Multimeter, Digital	1	SCAT 4237 or equivalent

5. COMPUTER PROGRAMS REQUIRED:

None

6. PREREQUISITES:

None

7. SPECIAL CONDITIONS AND SERVICES:

115 VAC, 1 ϕ , 60 Hz Power

8. EQUIPMENT INVOLVED IN TEST:

- a. AN/SPA-25G Indicator
- b. CP-2294/SPA-25G TSIU

9. CONFIGURATION:

No field changes required to run this test.

TEST OUTLINE

10. METHOD:

A visual inspection of the CP-2294/SPA-25G TSIU shall be conducted to ensure it is free of damage, debris and loose wire connections. Power shall be checked to ensure the correct input voltage is within tolerance. Perform a visual verification of the software initialization process.

11. STATION ASSIGNMENTS:

<u>STATION</u>	<u>NO. PERSONNEL</u>	<u>COMMENTS</u>
CP-2294/SPA-25G TSIU	1 Electronic Technician	Performs ILO Test

SAFETY INSTRUCTIONS

- a. The operation of this equipment involves the use of high voltages that are dangerous to life. Extreme caution must be exercised at all times. Do not work on open or disassembled units when power is applied.
- b. Turning OFF the CP-2294/SPA-25G TSIU by using the AC Power Switch (S1) does not remove the ships 115 VAC.

INITIAL CONDITIONS AND SETUP

STEP	STATION	INSTRUCTIONS
1	SPDP	Turn OFF and tag Main Circuit Breaker at Ships Power Distribution Panel (SPDP).
2	CP-2294/SPA-25G TSIU	Set AC Power switch (S1) to OFF position.
3	CP-2294/SPA-25G TSIU	Turn Display Brightness Control with OFF Detent switch (Figure 1) fully counterclockwise.
4	CP-2294/SPA-25G TSIU	Inspect equipment for: a. Presence of foreign matter. b. Loose cables and cable connections. c. Damaged or chaffed cable insulation. d. Loose or missing protective covers. e. Loose modules, fastening hardware, or circuit cards.

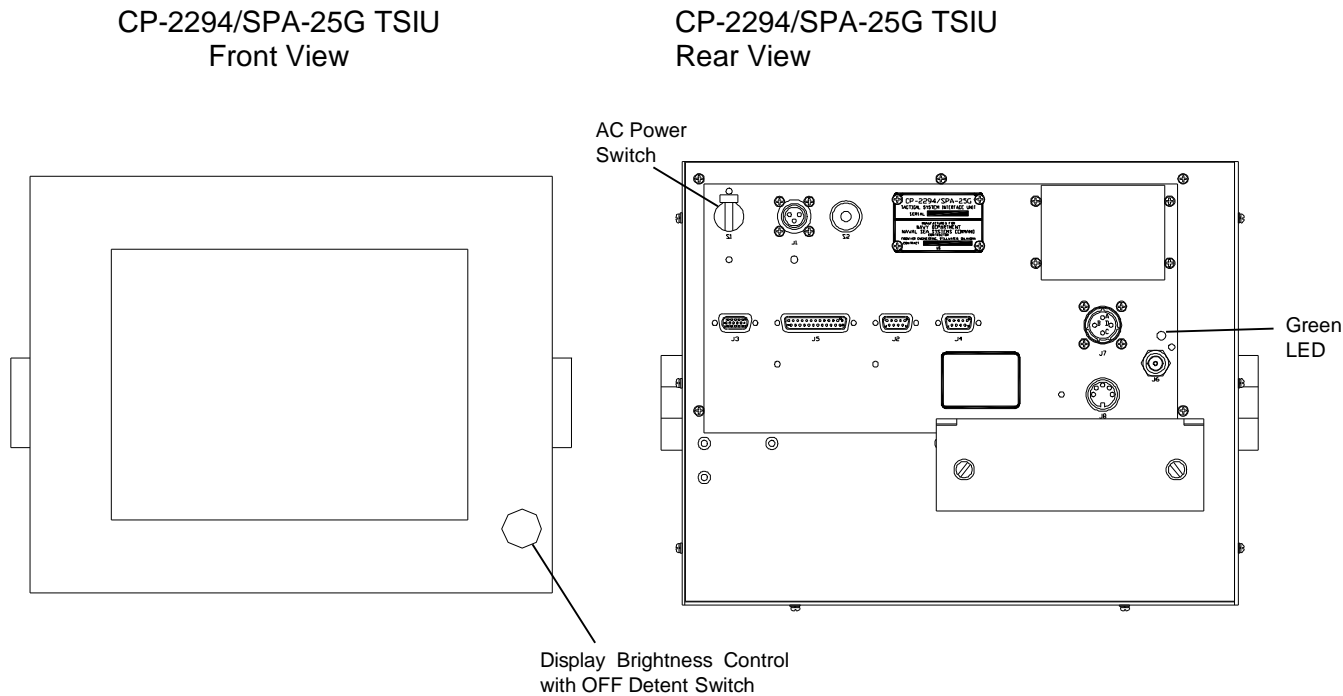


Figure 1. CP-2294/SPA-25G TSIU

TESTING STEPS

<u>STEP</u>	<u>STATION</u>	<u>INSTRUCTIONS</u>								
1	CP-2294/SPA-25G TSIU	Disconnect AC Input cable to J1 connector on the units back panel.								
2	SPDP	Remove tag and turn ON Main Circuit Breaker at SPDP.								
3	CP-2294/SPA-25G TSIU	Verify the following cable voltages and frequency: <table><tr><td><u>Contact</u></td><td><u>Signal Designation</u></td></tr><tr><td>A to B</td><td>105 VAC to 125 VAC</td></tr><tr><td>C to Chassis GND</td><td><1 VAC</td></tr><tr><td>A to B</td><td>≥50 Hz to ≤63 Hz</td></tr></table> <u>RECORD</u> on Test Data Recording Sheet.	<u>Contact</u>	<u>Signal Designation</u>	A to B	105 VAC to 125 VAC	C to Chassis GND	<1 VAC	A to B	≥50 Hz to ≤63 Hz
<u>Contact</u>	<u>Signal Designation</u>									
A to B	105 VAC to 125 VAC									
C to Chassis GND	<1 VAC									
A to B	≥50 Hz to ≤63 Hz									
4	SPDP	Turn OFF and tag Main Circuit Breaker at SPDP.								
5	CP-2294/SPA-25G TSIU	Reconnect AC Input cable to J1.								
6	SPDP	Remove tag and turn ON Main Circuit Breaker at SPDP.								
7	CP-2294/SPA-25G TSIU	Set AC POWER switch (S1) to ON position.								
8	CP-2294/SPA-25G TSIU	Verify Green LED above connector J6 is lit. <u>RECORD</u> on Test Data Recording Sheet.								
9	CP-2294/SPA-25G TSIU	Ensure Fans on left side are running. <u>RECORD</u> on Test Data Recording Sheet.								

TESTING STEPS

<u>STEP</u>	<u>STATION</u>	<u>INSTRUCTIONS</u>
10	CP-2294/SPA-25G TSIU	Turn Display Brightness Control with OFF Detent switch fully clockwise verifying display illuminates and brightness increases. <u>RECORD</u> on Test Data Recording Sheet.
11	CP-2294/SPA-25G TSIU	Observe software initialization on monitor screen.
12	CP-2294/SPA-25G TSIU	Verify "Tactical System Interface Unit" window is displayed. <u>RECORD</u>
13	CP-2294/SPA-25G TSIU	Using Touch Screen software buttons, select "Help," then "TSIU Version." Contact Systems Administrator for current version of CP-2294/SPA-25G TSIU Operational Program. <u>RECORD</u> on Test Data Recording Sheet.

SHUTDOWN AND SECURING

<u>STEP</u>	<u>STATION</u>	<u>INSTRUCTIONS</u>
1	CP-2294/SPA-25G TSIU	Turn Display Brightness Control counterclockwise to OFF and verify display diminishes to OFF.
2	CP-2294/SPA-25G TSIU	Set AC POWER switch (S1) to OFF position.

TEST DATA RECORDING

EQUIPMENT UNDER TEST

EQUIPMENT

CP-2294/SPA-25G TSIU

SERIAL NO.

PREREQUISITES

None.

TEST DATA RECORDING

<u>STEP</u>	<u>TEST ELEMENT</u>	<u>EXPECTED RESULTS</u>	<u>ACTUAL RESULTS</u>
3	<u>AC POWER INPUT CONNECTOR VOLTAGE LEVEL</u> <u>J1 CONTACT</u> A to B C to Chassis Ground A to B	105 VAC to 125 VAC <1 VAC ≥50 Hz to ≤63 Hz	____ VAC ____ VAC ____ Hz
8	<u>GREEN LED IS LIT</u> AC Power Switch S1	LED is Lit (Green)	_____
9	<u>EXHAUST FANS ARE ROTATING</u> AC Power Switch S1	Fans Rotate	_____
10	<u>DISPLAY ILLUMINATES</u> Display Brightness Control Switch	Display Illuminated Brightness Level Increases	_____ _____

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TEST DATA RECORDING

<u>STEP</u>	<u>TEST ELEMENT</u>	<u>EXPECTED RESULTS</u>	<u>ACTUAL RESULTS</u>
12	<u>TACTICAL SYSTEM INTERFACE UNIT WINDOW IS DISPLAYED</u> Touch Panel	Tactical System Interface Unit Window Displayed	_____
13	<u>CP-2294/SPA-25G TSIU SOFTWARE VERSION</u> Touch Panel	Software Version	_____

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TEST EQUIPMENT USED

List all test equipment utilized in the test including all general and specialized test equipment, special test cables, attenuators, and any other materials requiring calibration. Include extra sheets as necessary to identify all test equipment.

<u>GENERIC NAME</u>	<u>MODEL</u>	<u>SERIAL NO.</u>	<u>CALIBRATION DUE DATE</u>	<u>REMARKS</u>
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COMMENTS

This sheet is provided for the test conductor or Government witness to make appropriate comments including the following:

- a. Visual observations of dynamic responses;
- b. Erratic or unusual equipment behavior;
- c. Operational or handling difficulties;
- d. Procedural corrections;
- e. Equipment malfunctions;
- f. Discrepancies noted during test conduct; and,
- g. Waivers including reference to authorization document, i.e., letter, message, etc.

Indicate if a Test Problem Report (TPR) was generated with respect to these or other problems.

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